

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Christopher B. Weare

Serial No.: 09/928,004 /

Filing Date: August 10, 2001

For: SYSTEM AND METHOD FOR AUDIO FINGERPRINTING



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Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

## INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

- ☒ In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first office action after the filing of request for continued examination under §1.114, no additional fee is required.



- ☐ In accordance with §1.129(a), this Information Disclosure Statement is being filed in connection with ☐ the first or ☐ second After Final Submission, therefore:
- ☐ Certification in Accordance with §1.97(e) is attached; or
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- ☐ In accordance with §1.97(c), this Information Disclosure Statement is being filed after the period set forth in §1.97(b) above but before the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311, or before an action that otherwise closes prosecution in the application, therefore:
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- ☒ Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.
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## EXCEPT THAT:

- ☐ In view of the voluminous nature of references [list as appropriate], and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
- ☐ In accordance with §1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. §120 have been made in the instant application:

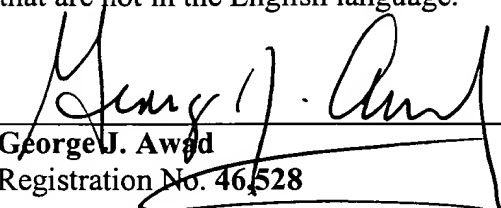


- ☐ Copies of references [list as appropriate] listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior application Serial No. , filed .
- ☐ If any of the foregoing publications are not available to the Examiner, Applicant will endeavor to supply copies at the Examiner's request.

Please charge any deficiency or credit any overpayment to Deposit Account No. 23-3050. This form is submitted in duplicate.

There are no listed references that are not in the English language.

Date: November 16, 2001

  
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Sheet 1 of 5

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. <b>MSFT-0587/167514.2</b> Serial No. <b>09/928,004</b>  Applicant <b>Christopher B. Weare</b>  Filing Date <b>August 10, 2001</b> Group <b>2121</b>	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>AA</b>	Appelbaum, M. et al., "Agile – A CAD/ CAM/ CAE Interface Language," <i>Society of Manufacturing Engineers: Technical Paper</i> , 1984, MS84-182, 1-19	
	<b>AB</b>	Bendix, L. et al., "CoEd – A Tool for Versioning of Hierarchical Documents," B. Magnusson (Ed.), <i>System Configuration Management, Proc. ECOOP'98 SCM-8 Symposium</i> , Brussels, Belgium, <b>July 20-21, 1998</b>	
	<b>AC</b>	Biglari-Abhari, M. et al., "Improving Binary Compatibility in VLIW Machines through Compiler Assisted Dynamic Rescheduling," <i>IEEE</i> , 2000, 386-393	
✓	<b>AD</b>	Boneh, D. et al., "Collusion-secure fingerprinting for digital data," <i>IEEE Trans. Information Theory</i> , 1998, 44(5), 1897-1905	
	<b>AE</b>	Bratsberg, S.E., "Unified Class Evolution by Object-Oriented Views," Pernul, G. et al. (Eds.), <i>Entity-Relationship Approach – ER '92. Proc. 11<sup>th</sup> International Conference on the Entity-Relationship Approach</i> , Karlsruhe, Germany, <b>October 7-9, 1992</b> , 423-439	
	<b>AF</b>	Bresin, R. et al., "Synthesis and decoding of emotionally expressive music performance," <i>IEEE SMC '99 Conference Proceedings. 1999 IEEE Int'l Conf. On Systems, Man, and Cybernetics</i> , 1999, Vol. 4, 317-322	
	<b>AG</b>	Camurri, A. et al., "Multi-Paradigm Software Environment for the Real-Time Processing of Sound, Music and Multimedia," <i>Knowledge-Based Systems</i> , 1994, 7(2), 114-126	
	<b>AH</b>	Camurri, A. et al., "Music and Multimedia Knowledge Representation and Reasoning - The Harp System," <i>Computer Music J.</i> , 1995, 19(2sum), 34-58	
	<b>AI</b>	Camurri, A., "Music content processing and multimedia: Case studies and emerging applications of intelligent interactive systems," <i>J. New Music Res.</i> , 1999, 28(4), 351-363	
✗	<b>AJ</b>	Clamen, S.M., "Schema Evolution and Integration", <i>Distributed and Parallel Databases 2</i> , 1994, 2, 101-126	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

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	<b>AK</b>	Cohen, W.W. et al., "Web-collaborative filtering: recommending music by crawling the Web," <i>Computer Networks</i> , <b>2000</b> , 33, 685-698		
	<b>AL</b>	Conradi, R. "Version Models for Software Configuration Management," <i>ACM Computing Surveys</i> , <b>June 1998</b> , 30(2), 232-282		
	<b>AM</b>	Conradi, R. et al., "Change-Oriented Versioning: Rationale and Evaluation," <i>Third Int'l. Workshop - Software Engineering &amp; Its Applications</i> , <b>December 3-7, 1990</b> , Toulouse, France, pp. 97-108		
	<b>AN</b>	Craner, P.M., "New Tool for an Ancient Art: The Computer and Music," <i>Computers and Humanities</i> , <b>1991</b> , 25, 303-313		
	<b>AO</b>	De Castro, C. et al., "Schema Versioning for Multitemporal Relational Databases," <i>Information Systems</i> , <b>1997</b> , 22(5), 249-290		
	<b>AP</b>	DeRoure, D.C. et al., "Content-based navigation of music using melodic pitch contours," <i>Multimedia Systems</i> , <b>2000</b> , 8, 190-200		
	<b>AQ</b>	Drossopoulou, S. et al., "A Fragment Calculus -towards a model of Separate Compilation, Linking and Binary Compatibility," <i>14th Symposium on Logic in Computer Science - IEEE Computer Society</i> , <b>July 2-5, 1999</b> , Los Alamitos, California, pp 147-156		
	<b>AR</b>	Eisenberg, M. "Programmable applications: exploring the potential for language/interface symbiosis," <i>Behaviour &amp; Information Technology</i> , <b>1995</b> , 14(1), 56-66		
	<b>AS</b>	Franconi, E. et al., "A Semantic Approach for Schema Evolution and Versioning in Object-Oriented Databases," J. Lloyd et al., (Eds.), <i>Computational Logic - CL 2000: Proc. First Int'l. Conference</i> , <b>July 24-28, 2000</b> , London, UK, pp. 1048-1062		
	<b>AT</b>	Gal, A. et al., "A Multiagent Update Process in a Databases with Temporal Data Dependencies and Schema Versioning," <i>IEEE Transactions on Knowledge and Data Engineering</i> , <b>January/February 1998</b> , 10(1), 21-37		
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<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>					
	<b>AU</b>	Gentner, T. et al., "Perceptual classification based on the component structure of song in European starlings," <i>J. Acoust. Soc. Am.</i> , <b>June 2000</b> , 107(6), 3369-3381			
	<b>AV</b>	Goddard, N.J., "Using the "C" programming language for interface control," <i>Laboratory Microcomputer</i> , <b>Autumn 1982</b> , 15-22			
	<b>AW</b>	Goldman, C.V. et al., "NetNeg: A connectionist-agent integrated system for representing musical knowledge," <i>Annals of Mathematics and Artificial Intelligence</i> , <b>1999</b> , 25, 69-90			
	<b>AX</b>	Goldstein, T.C. et al., "The Object Binary Interface- C++ Objects for Evolvable Shared Class Libraries," <i>USENIX Association - Proc. of the 1994 USENIX C++ Conference</i> , <b>April 11-14, 1994</b> , Cambridge, MA, 1-19			
	<b>AY</b>	Hori, T. et al., "Automatic music score recognition/play system based on decision based neural network," <i>1999 IEEE Third Workshop on Multimedia Signal Processing</i> , Ostermann, J. et al. (eds.), <b>1999</b> , 183-184			
	<b>AZ</b>	Kieckhefer, E. et al., "A computer program for sequencing and presenting complex sounds for auditory neuroimaging studies," <i>J. Neurosc. Methods</i> , <b>August, 2000</b> , 101(1), 43-48			
	<b>BA</b>	Kirk, R. et al., "Midas-Milan - an open distributed processing system for audio signal processing," <i>J. Audio Enginerr. Soc.</i> , <b>1996</b> , 44(3), 119-129			
	<b>BB</b>	Krulwich, B., "Lifestyle finder - Intelligent user profiling using large-scale demographic data," <i>AI Magazine</i> , <b>1997</b> , 18(2sum), 37-45			
	<b>BC</b>	Lethaby, N., "Multitasking with C++," <i>Proc. of the 5<sup>th</sup> Annual Embedded Systems Conference</i> , <b>5-8 October 1993</b> , Santa Clara, CA, 2, 103-120			
	<b>BD</b>	Lewine, D., "Certifying Binary Applications," <i>Proc. of the Spring 1992 EurOpen &amp; USENIX Workshop</i> , <b>April 6-9, 1992</b> , Jersey, Channel Islands, 25-32			
	<b>BE</b>	Li, D. et al., "Classification of general audio data for content-based retrieval," <i>Pattern Recogn. Letts.</i> , <b>2001</b> , 22(5), 533-544			
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**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	<b>BF</b>	Liang, R.H. et al., "Impromptu Conductor - A Virtual Reality System for Music Generation Based on Supervised Learning," <i>Displays</i> , <b>1994</b> , 15(3), 141-147
	<b>BG</b>	Logrippo, L., "Cluster analysis for the computer-assisted statistical analysis of melodies," <i>Computers Humanities</i> , <b>1986</b> , 20(1), 19-33
	<b>BH</b>	Moreno, P.J. et al., "Using the Fisher Kernal Method for Web Audio Classification," <i>2000 IEEE Int'l Conf. On Acoustics, Speech, and Signal Processing, Proceedings</i> , <b>2000</b> , Vol. 4, 2417-2420
✕	<b>BI</b>	Morrison, I. et al., "The Design and Prototype Implementation of a "Structure Attribute" Model for Tool Interface Within an IPSE," <i>Microprocessing and Microprogramming</i> , <b>1986</b> , 18, 223-240
	<b>BJ</b>	Oiwa, Y. et al., "Extending Java Virtual Machine with Integer-Reference Conversion," <i>Concurrency: Practice and Experience</i> , <b>May 2000</b> , 12(6), 407-422
	<b>BK</b>	Oussalah, C. et al., "Complex Object Versioning," <i>Advanced Information Systems Engineering - Proc. 9th Int'l. Conference, CaiSE'97, June 16-20, 1997, Catalonia Spain</i> , 259-272
	<b>BL</b>	Pesavento, M. et al., "Unitary Root-MUSIC with a Real-Valued Eigendecomposition: A Theoretical and Experimental Performance Study," <i>IEEE Transactions on Signal Processing</i> , <b>May 2000</b> , 48(5), 1306-1314
✕	<b>BM</b>	Pirn, R., "Some Objective and Subjective Aspects of 3 Acoustically Variable Halls," <i>Appl. Acoustics</i> , <b>1992</b> , 35(3), 221-231
	<b>BN</b>	Proper, H.A., "Data schema design as a schema evolution process", <i>Data &amp; Knowledge Engineering</i> , <b>1997</b> , 22, 159-189
	<b>BO</b>	Roddick, J.F., "A survey of schema versioning issues for database systems," <i>Information and Software Technology</i> , <b>1995</b> , 37(7), 383-393
	<b>BP</b>	Rose, E. et al., "Schema versioning in a temporal object-oriented data model," <i>Int'l. Journal on Artificial Intelligence Tools</i> , <b>1998</b> , 7(3), 293-318

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	<b>BQ</b>	Serra, A., "New solutions for the transmission of music. Possible methods in view of the reduction of the pass band," <i>Revista Espanola de Electronica</i> , July, 1976, 23(260), 34-35 <b>(English language abstract attached)</b>	
	<b>BR</b>	Smith, M.W.A., "A relational database for the study and quantification of tempo directions in music," <i>Comput. Humanities</i> , 1994, 28(2), 107-116	
	<b>BS</b>	Speiser, J.M. et al., "Signal processing computations using the generalized singular value decomposition," <i>Proceedings of SPIE - The Int'l Society for Optical Engineering. Real Time Signal Processing VII</i> , Bellingham, WA, 1984, 47-55	
	<b>BT</b>	Surveyer, J., "C+ = (C-Sharp == Microsoft Java++)? True:False;", <i>Java Report</i> , October 2000, 5 pages	
	<b>BU</b>	Tsotras, V. et al., "Optimal Versioning of Objects," <i>Eighth Int'l. Conference on Data Engineering - IEEE Computer Society</i> , February 2-3, 1992, Tempe, Arizona, 358-365	
	<b>BV</b>	Urtado, C. et al., "Complex entity versioning at two granularity levels," <i>Information Systems</i> , 1998, 23(3/4), 197-216	
	<b>BW</b>	Wieczerzycki, W., "Advanced versioning mechanisms supporting CSCW environments," <i>Journal of Systems Architecture</i> , 1997, 43, 215-227	
	<b>BX</b>	Yoder, M.A. et al., "Using Multimedia and the Web to teach the theory of digital multimedia signals," <i>Proceedings. Frontiers in Education, 1995 25th Annual Conference. Engineering Education for the 21st Century</i> , IEEE, Budny, D. et al. (eds.), November 1-4, 1995, Vol. 2, Atlanta, GA	
	<b>BY</b>	Zhang, T. et al., "Audio content analysis for online audiovisual data segmentation and classification," <i>IEEE Trans. on Speech and Audio Processing</i> , May, 2001, 9(4), 441-457	
	<b>BZ</b>	Zhang, T. et al., "Heuristic approach for generic audio data segmentation and annotation," <i>Proceedings ACM Multimedia 99</i> , 1999, 67-76	
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